

What is claimed is:

1. A draft inducer system comprising:  
a voltage reducer capable of converting an input AC voltage to a reduced  
5 voltage, the voltage reducer comprising:  
a reducer housing;  
a set of prongs extending from the reducer housing, the set of  
prongs capable of plugging into an AC outlet; and  
an output interface capable of delivering the reduced voltage,  
10 the system also including an inducer unit capable of being coupled with  
the output interface, the inducer unit comprising:  
a unit housing;  
an air moving device within the unit housing; and  
a mixing chamber formed by the unit housing, the mixing chamber  
15 having an exhaust input to receive exhaust from a burning fuel, the  
mixing chamber also having an ambient air input for receiving ambient  
air, the ambient air mixing with the exhaust in the mixing chamber to  
produce mixed air, the mixing chamber also having a mix output capable  
of directing the mixed air from the mixing chamber.  
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2. The system as defined by claim 1 wherein the air moving device includes  
a DC blower.
3. The system as defined by claim 1 wherein the reducer housing is  
25 comprised of a flexible material.
4. The system as defined by claim 1 wherein the voltage reducer includes a  
transformer for producing the reduced voltage.

5. The system as defined by claim 1 wherein the voltage reducer includes a cord that terminates at the output interface, the output interface being removably coupleable with the inducer unit.

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6. The system as defined by claim 1 wherein the inducer unit includes rectification circuitry to produce a substantially DC input voltage from the reduced voltage.

10 7. The system as defined by claim 1 further including a hot water heater, the unit housing being mounted to the hot water heater, the hot water heater burning the fuel to produce the exhaust.

8. A draft inducer for controlling the exhaust of a fuel burning system, the  
15 fuel burning system igniting to burn fuel after control circuitry that is a part of the system is energized, the draft inducer system including:  
an input for receiving power;  
an air moving device energized by power received from the input; and  
an output for selectively delivering the power to the control circuitry, the  
20 control circuitry being energized by the power received via the output,  
the output switching the power to the control circuitry on and off as a function of the rotational speed of the air moving device.

9. The draft inducer as defined by claim 8 further including a switch  
25 between the input and the output, the switch being configured to provide a closed circuit when the air moving device is operating at least at a predefined speed.

10. The draft inducer as defined by claim 9 wherein the switch is configured to provide an open circuit when the air moving device is operating below the predefined speed, the open circuit preventing power from being delivered from the output.

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11. The draft inducer as defined by claim 8 wherein the fuel burning system produces an exhaust gas, the draft inducer mixing air with the exhaust gas to produce a mixture.

10 12. The draft inducer as defined by claim 11 further including a switch coupled between the input and the output, the switch being configured to provide a closed circuit at least a part of the time when the temperature of the mixture does not exceed a predetermined value.

15 13. The draft inducer as defined by claim 12 wherein the switch is configured to provide an open circuit when the temperature of the mixture exceeds the predetermined value, the open circuit preventing power from being delivered from the output.

20 14. The draft inducer as defined by claim 8 wherein the air moving device includes a DC blower.

15. The draft inducer as defined by claim 8 further including a housing containing the air moving device.

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16. The draft inducer as defined by claim 15 further including a voltage reducer capable of reducing an input AC voltage to a reduced voltage, the voltage reducer having a reducer housing and a set of prongs extending from the

housing, the set of prongs being capable of plugging into an AC outlet, the voltage reducer also having an output interface capable of delivering the reduced voltage to the input.

- 5 17. The draft inducer as defined by claim 8 further including a processor that detects the rotational speed of the air moving device, the processor producing a power signal when the air moving device rotates at a predetermined rotational speed, generation of the power signal causing the output to deliver power to the control circuitry.

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18. A draft inducer system comprising:  
a voltage reducer capable of converting an input AC voltage to a reduced voltage, the voltage reducer having a set of prongs capable of plugging into an AC outlet; and

- 15 an inducer unit having a unit housing and an air moving device within the unit housing, the inducer unit being removably coupleable with the voltage reducer, the inducer unit being energized by the reduced voltage.

19. The system as defined by claim 18 wherein the voltage reducer has a cord  
20 that terminates in an output interface, further wherein the inducer unit has a power input that is removably coupleable with the output interface of the voltage reducer.

20. The system as defined by claim 18 wherein the voltage reducer has a  
25 reducer housing that contains voltage reduction circuitry.

21. The system as defined by claim 18 wherein the reduced voltage is an AC voltage, the inducer including rectification circuitry to convert the reduced voltage to a DC voltage.

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